

Focused seminar group teaching and learning: a more collaborative approach?

Karen Clarke (k.clarke@wlv.ac.uk)
School of Education

(The report below is a summary of a longer article. For further details please contact the author.)

Background and rationale

This research continued an earlier research project (Clarke and Lane, 2002) based in Early Childhood Studies, whereby the perceptions of one cohort of students regarding small group teaching and learning were examined. The earlier findings showed that students valued the opportunity of discussing particular subject-related topics in small tutor-led groups. In this earlier research there was also a significant improvement in the grades achieved by the students, which they attributed to the additional small group seminar.

The original research was extended to include students who were studying on different degree and higher education programmes within the School of Education at the University of Wolverhampton. Other teaching staff were also involved in the research.

Teaching staff were briefed to organise two seminar-type sessions of one hour each, in addition to the usual teaching hours required for that particular module. The material used and the teaching methods were left to the tutors' discretion and preference. Students were asked whether they wished to take part in these additional seminars on a voluntary basis. The numbers of students attending these seminars varied from 8 to 25.

The aim of the research was to determine whether this type of small group work fostered a more collaborative and co-operative approach to learning.

'Learning is enhanced when it is more like a team effort rather than a solo race. Good learning...is collaborative and social, not competitive and isolated....Sharing one's ideas and responding to others' improves thinking and deepens understanding.' (Gerdy, 1998 cited in www.city.londonmet.ac.uk/deliberations/collab.learning)

The terms 'co-operative' and 'collaborative' learning are often used as interchangeable but Bruffee (1995, cited in Gillies and Ashman, 2003) suggests that the difference lies in the teaching methods. According to Bruffee, co-operative learning is usually tutor-led and is appropriate for learning facts and collaborative learning is seen as appropriate for learning that requires a critical approach. However Panitz (1998) suggests that co-operative learning and collaborative learning are synonymous.

In this research, both approaches were used depending on the modules represented, the teaching strategies employed and the tasks set. The underpinning philosophy for co-operative and collaborative learning is that there is shared responsibility for learning amongst the group members. In collaborative learning, the group also takes responsibility for the setting the criteria and then evaluating that criteria.

The benefits of group learning have been widely researched and are now firmly embedded in the teaching and learning approaches that are used for early years education through to higher education students. (Johnson and Johnson, 2000, Sharan, 1980 Slavin, 1977, Vygotsky, 1978 inter alia cited in Gillies and Ashman, 2003) Research has also demonstrated that

group learning is beneficial to all students – those who are high achievers and well motivated and the lower achievers and perhaps less motivated. (Zahorik, 1999) These researchers confirm that group learning enhances achievement, fosters socialisation, improves attitudes towards learning, and develops a better understanding of diverse cultural backgrounds. With widening participation high on the agenda for higher education, it is crucial that the teaching and learning embraces and encourages the success of students from all walks of life.

As the students attended these additional seminars on a voluntary basis, individual motivation was a strong factor. Co-operative and collaborative learning can elevate individual motivational aims to a more altruistic purpose of collective motivation where all are successful in achieving their goals. An individual's goals, in a learning situation, rarely differ from other members of the group, but the motivation to achieve a goal is directly related to the ownership that a person has for the goal. (Johnson and Johnson, 2003)

'Motivation is inherently emotional'. (Gillies and Ashman, 2003, p.139) Most emotions related to goal achievement are of a social nature in that they include other people's perceptions and values of social norms. Le Bon (1960 cited in Gillies and Ashman, 2003) argued that in groups, emotions are not only shared but are magnified and that shared feelings are more powerful and meaningful than feelings experienced in isolation. Consequently, co-operative and or collaborative learning should promote the positive emotions that arise from achievement and success.

Another important aspect of collaborative and co-operative learning is that of the social constructivist approach which views achievement as a cognitive process. Vygotsky ascribed the influence of collaborative activity on learning as follows: 'Functions are first formed in the collective in the form of relations (between individuals) and then become mental functions for the individual.... Research shows that reflection is spawned from argument'. (cited in Daniels and Edwards, 2004, p. 285) This concept fits neatly with the description of collaborative learning as a method of developing a critical approach to learning. Research into learning and teaching (Damon, 1984; Murray *et al*, 1982, cited in Daniels and Edwards, 2004) has argued that interaction amongst students leads to improved student achievement because they learn from each other through discussion, developing higher thinking skills and critical reflection.

Both co-operative and collaborative learning involve active participation on the part of the learners. The use of active learning means a transformation in thinking; students must move from passive recipients of knowledge to participating in activities that promote the higher levels of thinking such as analysis, synthesis and evaluation. Sivan, Leung and Woon, (2000), define active learning as consisting of three factors: basic elements, learning strategies and teaching resources. The basic elements include talking and listening, reading, writing and reflecting. Learning strategies include small groups and co-operative and collaborative learning. The teaching resources must clearly relate to the learning strategies and for this research a variety of teaching materials were used including technology for one group who worked collaboratively on-line.

Co-operative and collaborative learning is beneficial in several ways; firstly, the motivation factor which changes learning behaviour. Secondly, attitudinal changes towards learning occur. Finally, because discussion is a dominant feature in both co-operative and collaborative learning, critical thinking is enhanced and ideas challenged thereby enhancing cognitive skills.

The research

The research is located within an eclectic paradigm because the data collected was both quantitative and qualitative. However, most of the analysis is based on student and staff perceptions of the effectiveness of co-operative and or collaborative learning and therefore

the research tends more towards an interpretivist critique. It is located within a case study approach as all participants are either students or staff in the School of Education and therefore all have common ground. Although the research will not be generalisable, the case study approach enables the 'research to be used to expand and enrich the repertoire of social constructions' (Gomm, Hammersley and Foster, 2000, p.52). As the underpinning theory for this research is embedded within a social constructivist framework the case study approach is justified.

The research wanted to establish the effectiveness of co-operative/collaborative learning as an enhancement to the development of critical thinking and also having the confidence to express this thinking. Slavin, 1989, determined that it was the relationships within social groupings that promoted and enhanced learning

Students and staff from the School of Education were asked whether they wished to participate in the research on a voluntary basis. The research funding enabled staff to have five additional hours to prepare the materials, organise and participate in the additional seminars. The seminars were arranged to take place out of the usual teaching hours for that particular module at mutually agreeable times. The fact that students were willing to attend additional sessions is testimony to their individual motivation.

The activities for the groups were wide ranging and the staff had clearly thought about the implications for co-operative and or collaborative learning. Activities included case studies, the use of video to generate discussion, critiques of relevant reading materials, generation of ideas through brain storming and a computer exercise requiring students to collaborate and share ideas online.

Five different cohorts of students took part in the research.

Cohort	No. of students	Focus of seminar
BEd Primary 1st year students	8	Science based topic. Problem solving exercise
F. D. Early Childhood Studies 1st year students	14	Additional reading relating to a given topic and study skills for assignment
BA Hons in Early Childhood Studies 2nd year students	25	Additional reading and writing skills
Cert Ed Post-16 at an FE College (university franchise)	8	Additional subject knowledge
PGCE Post 16 (one year course)	9	Essay writing techniques and analysing work before handing in)
Total	64	

These cohorts represent some of the programmes offered in the School of Education.

Students were asked to commit themselves to attending both hour-long seminars and to completing evaluation questionnaires. The two groups of students from the Early Childhood Studies degrees also responded to focus group interviews when they had attended both sessions. Four out of the five staff were interviewed on an individual basis after they had facilitated both sessions.

The questionnaires were first piloted with a 'convenience sample' (Gilham, 2000) of 5 undergraduate students in the Learning Centre at Walsall Campus. This was to establish clarity of the questions and the reliability of the focus of the research. The questionnaire referred to the age of the students, the course they were studying, the year or level of the course, the type of activity they had undertaken during the additional seminars and how beneficial or not they had found this to be. All five felt the questions were clear and

accessible. The questionnaires were given to the students at the close of the second seminar session, except for those on the BEd degree who had requested online questionnaires. Students were asked to leave the completed questionnaires, face down, before they left the room. The BEd students replied via email to the researcher, not the tutor involved. 3/5 of the groups returned 100%; the online group returned 50%, as did the questionnaires from the franchise college.

The student focus group interviews expanded on the questionnaire responses. The individual interviews with staff focussed on their perceptions of how the sessions had been received and also gave them opportunity to reflect on their practice and style. The staff interviews were in the style of 'naturally occurring conversations where the people (interviewed) knew the purpose of the research enquiry and were willing participants' (p.63, Gilham, 2000). Staff were asked to comment on any perceived differences that may have been present in these sessions from the nominated teaching sessions for the modules.

The outcomes

For this research, the last four questions of the questionnaire were the most significant from all the participating groups. Questions 5 and 6 yielded quantitative data.

Results of questions 5 and 6

Student groups	Q5 Why did you attend this additional seminar? (Tick relevant boxes) a) I want to understand the topic better b) I want to improve my grade c) I wanted to find out what others thought about the topic	Q6: Which aspects of the additional seminar did you find most useful? (Tick the relevant boxes) a) Presentational style of tutor b) Visual aids c) Other additional material d) Topic e) Promoting discussion f) Working with others
BEd Primary (4/8 responses)	a) = 4 b) = 4 c) = 1	a) = 1 e) = 4 f) = 2
Cert HE :Franchise College(8/8 responses)	a) = 8 b) = 0 c) = 6 d) = 6 e) = 4 f) = 1	a) = 6 b) = 5 c) = 3
Foundation Degree in Early Childhood Studies (15/15 responses)	a) = 12 b) = 8 c) = 12 d) = 5 e) = 10 f) = 8	a) = 5 b) = 0 c) = 7
PGCE (FAHE) (4/8 responses)	a) = 4 b) = 1 c) = 1 d) = 1 e) = 4 f) = 2	a) = 2 b) = 2 c) = 0

BA Hons Early Childhood Studies (24/25 responses)	a) = 24	a) = 10
	b) = 17	b) = 12
	c) = 22	c) = 11
		d) = 17
		e) = 22
		f) = 18

Questions 7 and 8 revealed perceptions and opinions. The responses from the focus group and single interviews also informed the qualitative analysis. 65 students took part in the research with 55 responding to the questionnaire; a return of 85.5%. The ages ranged from 19 to 45+. The gender breakdown was 11% male and 89% female which is representative of the student cohort within the School of Education.

The following two questions required a comment-style reply.

Question 7 asked: 'Which aspect(s) of these sessions were least useful to you?' This question could be considered superfluous as 64/65 respondents reversed the question and stated that everything was relevant. The single respondent who did answer stated that: *'there was a time restriction which was detrimental'*.

Question 8 asked participants to: 'Please state two positive aspects of this session'.

Students listed a large variety of positive aspects, such as 'using WOLF and technology', 'how to relate science subject knowledge to teaching children', 'how to use practical models to aid children's learning', 'confidence in own learning', 'clearer understanding of friction/air resistance', 'relate theory to practice' which revealed that individual needs were clearly met. Although there was some repetition of comments, what emerged from this were issues relating to the subject matter of the additional seminars but also comments that related to the value added aspects of collaborative learning. Comments that referred to the discussions or 'better understanding' and, confidence in own learning,' suggest that the social interaction first mooted by Vygotsky and cited in Daniels and Edwards (2004) enables these affective qualities to develop. The inference is that in the usual taught sessions there is not always the opportunity for this social interaction to occur.

The focus group interviews with two groups of students (BA Hons Early Childhood Studies and the PGCE (FAHE) also demonstrated the value that students placed on being given the opportunity to discuss issues in groups that were smaller than the usual teaching groups. Comments such as the following justify the added value that students perceive when the group is smaller and they are given the opportunity to express their opinions:

'It has been a good way to learn what other people think'

'The activities helped us all to learn'

'I have learned more about this topic than if I just read about it'

'These sessions have been really useful. More of them'

'Discussing it (the topic) clarified what was expected'

'Being able to ask questions and not feel as if... you know... you're the only one who hasn't got it'

'The opportunity to talk about parts that interest me'

'I felt involved which in lectures I don't always'

'I particularly liked the case studies and the way the video related to(my) critical analysis'

Clearly these comments reflect the positive feelings that evolve when students feel that they are valued by being actively involved in the group. There are also the elements of confidence in the subject matter and also of their own ability to express their ideas. The only quasi-negative comment was that the sessions were too short!

From a teaching perspective, the two members of staff interviewed felt that more was involved in the planning of sessions where co-operative/collaborative learning was fostered and the fact that the groups were much smaller than the usual cohorts of students.

'There was a lot of planning for me to make sure that the spirit of encouraging talk from the students was adhered to...but once discussions got underway and they began to express their

ideas, I shouldn't say this ... but ... there was actually less teaching for me. I became a kind of timekeeper to make sure that everyone had a turn. As I am in early years, it reminded me a little of circle time when I taught in school this was more demanding because the students have more to say than the children.'

'The best thing for me was the smaller groups even though there were 25 students who chose to come. I was impressed by the number who wanted to take part because you miss the intrinsic motivation when you are teaching larger groups. Also, seeing those students where it is like drawing blood from a stone to get them to join in, well they did for these sessions and showed that they have quite a sophisticated level of thinking. I really enjoyed that'

'I'm very interested in the use of ICT as a learning tool and this was an opportunity for me to pilot an idea that has been swirling around for some time but I did not actually get round to using it. Seeing the responses to this from the students has encouraged me to do more of this'

'I am sure that enabling students to comment critically on set pieces of reading in smaller groups where they don't lose their confidence is an effective way of getting the students to think critically'

Although the above comments demonstrate that this kind of teaching strategy is as rewarding for staff as it is for the students, staff revealed more disadvantages than the students.

'Large groups and too small rooms don't foster this type of learning'

'Really thorough planning is necessary to ensure that all students are able to and can participate'

'It is more challenging thinking about the different tasks and maintaining a sense of empowerment to everyone.'

'It would be ideal if teams of staff could teach in this way and have others observe the process so that we can get some feedback on this kind of teaching strategy'

Clearly, if this approach were to be used more widely, then the School Teaching and Learning Strategy would need to encompass the principles of collaborative and co-operative learning. Secondly, in addition to a whole school approach, then individual teams need to discuss this aspect of teaching and learning so that a cohesive plan is adopted. However, there is a staff development issue too, in that not all the staff fully understood the concepts of co-operative and or collaborative learning. As seen in the research on this topic one of the fundamental principles is the sharing of power. The staff with little or no student involvement provided the resources and activities. So although staff and students found the sessions rewarding, some of the basic ideology was missing and therefore this approach to studying would not be sustainable unless the philosophy of this approach is embedded.

Collaborative learning means that learning is a social communicative process, which actively engages in an interchange of ideas through discussion. It also means using the students' contributions as a basis for building the common ground for that particular class. For some people, both students and staff, this will involve a change in beliefs and values about learning and teaching.

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